

Personal

Professional LabVIEW Architect with highest possible Certifications (CLA and CLED.) Highly proficient in C and C# (MCP.) Wide range of experience in NI based solutions and Aerospace.

Certifications & Education

Certified LabVIEW Architect, Certified LabVIEW Embedded Developer, Certified TestStand Developer, Microsoft Certified C# Specialist, BS Electrical Engineering University of Wisconsin Madison - 2007

Experience

Kokott Automation LLC, Milwaukee, WI

Principle, January 2014 – Present

Hydraulic Cylinder Test System (Oilgear Corporation)

- Control/Test Platform for a \$4.5M machine
- Test/control of cylinders up to 30" in diameter @ up to 10,000 PSI
- Electrical Schematic consulting and signoff
- NI hardware including CRIO 9068, Analog, Digital, CANOpen, PROFIBUS, Serial, SSI
- Fully Automated Report Generation
- Tablet Monitoring with Microsoft Surface tablet
<https://www.kokottautomation.com/CylinDemo/cylinder.svg> (DEMO)
- Remote Condition monitoring
- Variable Frequency Drive Control with Rockwell VFDs

Hydraulic Pump Test System (Oilgear Corporation)

- Control/Test Platform for a \$6M+ machine
- Responsible for GUI and Electrical Schematic work
- Full Electrical Schematic (AutoCAD Electrical)
- NI hardware including CRIO 9068, Analog, Digital, CANOpen, PROFIBUS, Serial, SSI

Automated Motor Test System (Pentair Water Filtration)

- 10 Unit Motor lifecycle tester for small AC/DC Gear motors
- Full Schematic Creation (AutoCAD Electrical)
- Complete Panel Fabrication (Contracted)
- Complete Fixture Design (AutoCAD Inventor)
- NI CDAQ based control (AI, AO, Digital, USB, Serial)

Automated Filter Test Rework (Pentair Water Filtration)

- Updated/Modernization of Hardware
- Complete software re-write
- Control of up to 50 simultaneous Filter units.

Automated Firmware Test System (Brady Corporation)

- LabVIEW FPGA based Test System
- Full HIL system to measure and analyze timing of DUT
- Virtually prints labels accurately from timing analysis
- Can be controlled automatically via websocket interface
- Reduced development time of a 4 man Firmware team by 60%
- Discovered timing issues in multiple legacy printers.
- Qualified maximum system capabilities without need for prototyping

Experience

Fastek International Ltd, Brookfield, WI

Senior Architect, October 2013 - January 2014

MIL 1553 Bus interface software control (ITAR)

- ARM based Processor
- Full embedded software implementation in C
- Serially controlled external MIL-1553-Bus chip
- Interrupt based communication mechanism
- Flight critical software component

Fuel Pump Control Test System (Parker Hannifin Aerospace)

- Tool Qualified Automated Test Qualification Software for A350 Fuel Pump Electrical Supply
- Reduced 28 man-hour+ test to less than 30 min + 2 hours automated
- LabVIEW and TestStand application
- Over 800+ test cases verified
- DC, AC, HIPOT, GPIO, Ground fault.

Military Cargo Aerial Delivery System (ITAR)

- Software for lock control of military aerial drops
- Requirements were to DAL A; future commercial use planned.
- Played a major role in design and review of L6 & L7 requirements
- Serially monitor channel, serial controlled command interface boards on all locks
- ARINC 429 communication with flight systems (Root controller and GUI hub)
- 8 different electrical boards to be interfaced with NI hardware
- HIL tester with interfacing adapters on a per board basis using MAC panel.
- Electrical test schematics (ORCAD) for board to board adapters
- LabVIEW and TestStand application
- Contributed/authored
 - Software Verification procedure (SVP)
 - Software Development Plan (SDP)
 - Software Configuration Management Plan (SCMP)

Flap Control System Verification (Woodware MPC)

- Contributed to verification effort using tool qualified C# based analysis tool
- Wrote and Tested over 400 procedures

Astronautics Corporation of America, Milwaukee, WI

Software Engineer, July 2009 – October 2013

FEDEX Electronic Flight Bag (and others)

- Automated test software for Environmental and EMI testing
- Complete verification of all hardware in less than 15 seconds
- Complete Radiated & susceptibility sweeps in less than 3 seconds for 95% of functionality.
- Highly Accelerated Lifecycle Testing and Highly Accelerated Stress Screening (HALT/HASS)

Zebra Technologies, Vernon Hills, IL

Quality Engineer, January 2008 – March 2009

LabVIEW Automated Label Grading and Imaging System

- 100% of design including motor control, lighting, PCB, and analog circuitry, Mechanical Fixture

RFID 13.56 MHz Antenna Design for Patient Identification Printer

LabVIEW, TestStand, C#, C, Python, BASH, Linux administration, SVN, apache, Ubuntu server administration, AutoCAD Inventor, AutoCAD electrical, Mentor Graphics Suite, Cadsoft Eagle

Computer Software